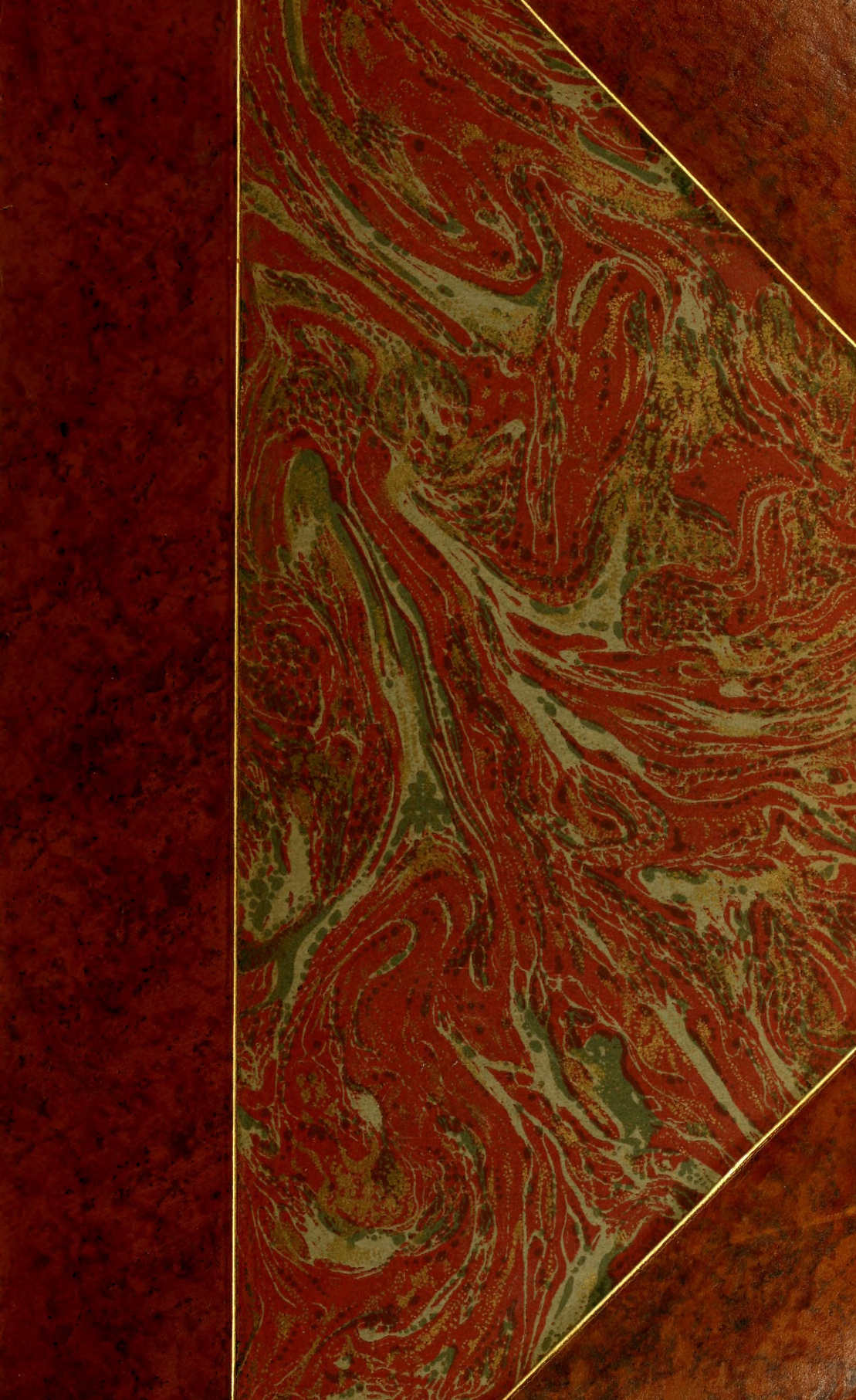

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THE

NATURAL HISTORY

OF

BRITISH SHELLS,

INCLUDING

FIGURES AND DESCRIPTIONS

OF ALL THE

SPECIES HITHERTO DISCOVERED IN GREAT BRITAIN,

SYSTEMATICALLY ARRANGED

IN THE LINNEAN MANNER,

WITH

SCIENTIFIC AND GENERAL OBSERVATIONS ON EACH.

IN FIVE VOLUMES.

VOL. I.

By E. DONOVAN, F. L. S.

AUTHOR OF THE NATURAL HISTORIES OF BRITISH BIRDS, INSECTS, &c. &c.

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1804.

ADVERTISEMENT.

THE present work is submitted with the utmost deference to the Reader as a general and very copious elucidation of all the larger kinds of Shells found in this country.

At the commencement of this undertaking the Author proposed that the five volumes of which this work consists should include figures and descriptions of all the British Shells; so far at least as they could be correctly ascertained. The amount of these collectively, he was induced to think might be very nearly appreciated from the several works of Lister, Merret, Petiver, Walker, Pennant, and Da Costa: from the number of nondescript British Shells that came into his possession with the original collection of the latter writer, together with those in his own cabinet independent of them; the whole amount of which was far from inconsiderable.

In this estimate, which the Author at first conceived would be completely adequate to every purpose of his design, he afterwards perceived himself in some degree mistaken. During the course of publication he has in various instances been kindly favoured with British Shells not before described: neither are the acquisitions which he has himself discovered in several remote parts of the country altogether unworthy of attention. Many of the species thus obtained were deemed too interesting to be omitted in a work of this nature, and it was therefore thought advisable to exclude those, which, from their extreme minuteness, are usually denominated Microscopic Shells, in order to admit the most important of them. The omission of the more diminutive species, for the sake of inserting Shells of conspicuous figure, that had not been before described as English, the Author trusts will rather be considered as an advantage, than detriment to this work. Nothing of material consequence, either in the collection of the Author, or the cabinets of his friends, to which he has access, has been neglected in this selection; and he could not feel himself completely justified in extending the work beyond the limits originally prescribed for no other purpose than to introduce the Microscopic Shells.

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THE

NATURAL HISTORY

OF

BRITISH SHELLS.

INTRODUCTION.

VERMES.

THIS class of Animals was formerly confounded with Insects and Plants: the *Intestina* and *Mollusca* were referred to the first class: the *Zoophyta* and *Lithophyta* to the latter; and some Authors had even classed the *testacea*, or Shells, as a branch of Mineralogy, without regarding the Animals inhabiting them. Linnæus, in the *Systema Naturæ*, comprehends the whole of these creatures in the last class of Zoology; and forms their classical character from their internal structure, as in larger and more perfect animals: COR uniloculare, inauritum; *Sanie* frigida, albida. Tentaculatis *Vermibus*. Heart furnished with one ventricle, without auricle; *sanies* cold and whitish, or colourless. The five orders of the Linnæan class *Vermes* are thus defined:—

Intestina, simple, naked, destitute of limbs.

Mollusca, simple, naked; but not without limbs.

Testacea, animal with a calcareous covering.

Lithophyta, animal composite, affixed to, and fabricate a calcareous base.—Coral.

Zoophyta, a vegetating stem like a plant; animal composite, and resemble flowers.

Linnæus has included in the *Testacea* Order the whole tribe of Shells. In the generic characters he regards both the Shell and its inhabitant: in the definition of species, the former only is attended to. There are very strong arguments against the method of arranging this tribe by the Animals, although it cannot be denied, that the Shells are only the coverings or habitations, and should not demand our primary attention *.

The TESTACEA are Vermes of the soft and simple kind, and are covered with a calcareous habitation. These are separated into three divisions, according to the number of valves of which the Shell consists. The first division includes only three genera, *Chiton*, *Lepas*, and *Pholas*; these are called Multivalves, and are formed of many valves, or pieces, disposed transversely on each other. The second division consists of Bivalves, or Shells of two pieces, connected together with a hinge, or cartilage. The third division is of Univalves, and have the Shell complete in one piece, as the word implies. The Linnæan genera are—

* Vide DONOVAN's Instructions for collecting and preserving Subjects of Natural History. London, 1794.

Multivalvia.

CHITON.	LEPAS.	PHOLAS.

Bivalvia : conchæ.

MYA.	SOLEN.	TELLINA.
CARDIUM.	MACTRA.	DONAX.
VENUS.	SPONDYLUS.	CHAMA.
ARCA.	OSTREA.	ANOMIA.
MYTILLUS.	PINNA.	

Univalvia.

spira regulari COCHLEAE.

ARGONAUTA.	NAUTILLUS.	CONUS.
CYPRAEA.	BULLA.	VOLUTA.
BUCCINUM.	STROMBUS.	MUREX.
TROCHUS.	TURBO.	HELIX.
NERITA.	HALIOTIS.	

sine spira regulari.

PATELLA.	DENTALIUM.	SERPULA.
TEREDO.	SABELLA.	

Pecten

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PLATE I.

FIG. I. I. I. I.

OSTREA VARIA.

VARIEGATED, OR ONE-EARED SCALLOP.

GENERIC CHARACTER.

Animal a Tethys. Shell bivalve unequal. The hinge without a tooth, having a small oval cavity.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell almost equally convex; about thirty rays, scabrous, imbricated, or beset with transverse scales. One ear *.

OSTREA VARIA testa æquivalvi: radiis triginta scabris compressis echinatis uni aurita. *Gmel.—Linn. Syst. Nat.* 3324. 48.

P. subrufus, striis viginti quatuor, ad minimum donatus.—P. parvus, ex croceo variegatus, tenuiter admodum striatus, alternis fere striis paulo minoribus. *List. H. Conch.*

Pecten minor nostras, striis plurimis minoribus. *Mus. Petiv. p.* 86. *No.* 830.

Pectunculus echinatus fusco purpureus. *Borlase Corn. p.* 277.

* It has two ears, but one is considerably larger than the other.

PLATE I.

Pecten varius : variegated scallop. *Pen. Br. Zool. No.* 64. *tab.* 61. *fig.* 64.

Pecten Monotis : One eared Escallop. Parvus angustior, æquivalvis, inæqualiter auritus, strigis echinatis. *Da Costa. Tab.* 10. *fig.* 1. 2. 4. 5. 7. 9.

Many beautiful kinds of this species are found on our coasts. Some are of an uniform, obscure, reddish, or purple colour, without any markings : some are violet, and others bright yellow, or orange. The most elegant kinds are variegated with different colours, as white, red, purple, and brown. The purple kind marbled with irregular spots, and waves of white ; and the coral red, with black and white markings, and white on the upper part, are select specimens of these elegant varieties.

Pennant says, this species is often found in oyster-beds, and dragged up with them. " It is frequent on most of the shores of England ; as in Wales ; at Margate, and Sheerness, in Kent ; in Sussex and Dorsetshire ; in Devonshire ; at Lelant and Whitsand Bay, &c. in Cornwall ; the ostium of the river Aln in Northumberland, and many other places." *Da Costa.*

PLATE I.

FIG. II.

PECTEN OBSOLETUS.

GENERIC CHARACTER.

Ostrea. *Linn.*

SPECIFIC CHARACTER AND SYNONYMS.

One large striated ear, with smooth equal shells; eight *obsolete* rays; of a dark purple colour. *Penn. Br. Zool. No.* 66. *tab.* 61. *fig.* 66.

PECTEN PARVUS: parvus fuscus longitudinaliter striatus, *Da Costa. Br. Conch.* 153. 8.

This is a very rare species; da Costa received his specimen from Cornwall.

The valves are equal and shallow; the shell thin, and semitransparent; the ears unequal, one being very small. The inside is smooth and brown, with a pearly gloss. The outside is a dull purplish brown, with numerous fine longitudinal striæ *, eight or ten of which are more prominent than the rest. These are surely not the *obsolete* rays of Pennant, as da Costa imagines; the former author must allude to the intermediate rays which are depressed and appear worn, as he describes them.

* The figure in Pennant's work is represented with transverse striæ; this appears however, to be an error of the engraver.

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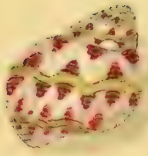

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PLATE II.

FIG. I. I.

TURBO CIMEX.

LATTICED WHELKE.

GENERIC CHARACTER.

Animal Limax. Univalve, spiral, or of a taper form. Aperture somewhat compressed, orbicular, entire.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell oblong-oval. Striæ decussate, or intersect each other in a spiral direction.

Turbo Cimex, testa oblongo-ovata, striis decussatis: punctis eminentibus. *Lin. Syst. Nat. p.* 1233. *No.* 609.

Turbo Cancellatus, *Latticed*. Turbo minimus albus cancellatim vel decussatim striatus. *Da Costa Br. Conch.* 104. 60. *tab.* 8. *fig.* 6. 9.

The natural size of this shell is shewn at Fig. I. together with its microscopic appearance. It is a very small species, thick, without

gloss. The striæ are elevated, broad, and cross each other so as to form a deep latticed-work of thick ridges. This species is noted from Cornwall and Guernsey: it is also found in the Mediterranean.

FIG. II. III. IV. VI. V.

TURBO PULLUS.

PAINTED WHELKE.

GENERIC CHARACTER.

Animal Limax. Shell univalve, spiral, or of a taper form. Aperture rather compressed, orbicular, entire.

SPECIFIC CHARACTER
AND
SYNONYMS.

Turbo Pullus. Turbo testa imperforata ovata lævi, apertura antice diducta. *Linn. Syst. Nat. p.* 1233. *No.* 610.

Turbo minimus lævis, variegatus, albo rubicundus. Small red and white variegated Whelke. *Borlase Cornw. p.* 277.

Painted, Turbo pictus. Turbo minimus lævis, albo et rubro perbelle pictus, *da Costa, p.* 103. 59. *tab.* 8. *fig.* 1. 3.

A minute, but elegant species; it is a very delicate shell, thin and transparent, smooth and glossy. The varieties are numerous; gene-

rally white or blush-rose colour, with the markings crimson or reddish purple, disposed in zones, spiral circles, transverse streaks, irregular waves, lines, spots, and specklings. Some are variegated with different shades of brown in a similar manner.

Fig. II. represents the natural size: Fig. III. a full grown specimen. Fig. IV. IV. IV. are elegant varieties, as they appear under the microscope. Da Costa notes this species from the coast of Cornwall, and from Exmouth in Devonshire.

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PLATE III.

FIG. I*. I. I.

PATELLA PELLUCIDA.

BLUE RAYED LIMPET.

GENERIC CHARACTER.

Animal Limax. Shell univalve, subconic, without spires.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell entire, gibbous, pellucid, marked with longitudinal blue rays.

PATELLA PELLUCIDA: testa integerrima obovato gibba pellucida: radiis quatuor cæruleis. *Gmelin. Lin. Syst. Nat.* 3717. 153.

Patella minima lævis pellucida, aliquot cæruleis lineis eleganter insignita. *List. Hist. Conch. tab.* 543. *fig.* 27.

Patella minor, fusca, tenuis, umbone nigro ad extremitatem anteriorem detruso, tribus inde lineis cæruleis per dorsum decurrentibus pulchre distincta. *Wallace, Orkneys, p.* 41.

Patella Anglica parva, prætenuis cymbuliformis, lineis cæruleis guttatis. *Mus. Petiv. cent.* 8. *p.* 68. *No.* 725.

PLATE III.

Transparent Patella. *Br. Zool.* 4. *No.* 150. *tab.* 90. *fig.* 150.
Patella Lævis. Smooth Patella. *Br. Zool. No.* 151. an *old shell.*
Patella Cæruleata. Blue rayed. *Da Costa. Br. Conch.* 7. 4. *tab.* 1. *fig.* 5. 6.
Lepas d'eau douce demi-ovoide transparent, a trois lignes bleues. *D'Avila, tab.* 1. *p.* 428. *No.* 962.

In the young state, this shell is very transparent and horny, the aperture ovoid, and the margins smooth and level; it has also several longitudinal lines of bright blue colour, which extend from the vertex down the back to the margin. According to Linnæus, these should be four in number; some authors say five, and *Borlase* mentions nine. The blue colour is disposed in spots in some specimens; in others in lines; and again in some others in short and interrupted dashes. Linnæus observes that the bright blue colour has not been found in any Shell except this.

The old shells are very different from the young ones, and have been mistaken by some Authors for distinct species. The young shell is remarkable for its pellucidity. The old ones are thicker and larger: the aperture irregular: the vertex two-thirds of the shell; and the rays of blue, dusky. Fig. I. * represents the natural size.

The Shell is found on the coast of Cornwall, and on the Dorset coast, near Weymouth. *Martin*, *Sibbald*, and *Wallace*, received it from the western isles of Scotland and the Orkneys.

PLATE III.

PATELLA FISSURA.

SLIT-LIMPET.

GENERIC CHARACTER.

Animal limax. Shell univalve, subconic, without spires.

SPECIFIC CHARACTER
AND
SYNONYMS.

Oval, striated, reticulated. Vertex recurved, or bent back. A slit in the anterior part.

Patella Fissura : testa ovali striato-reticulata : vertice recurvo, anterius fissa. *Gmelin, Linn. Syst. Nat.* 3728. 192.

Patella integra parva, alba, cancellata, fissura notabili in margine, *List. H. Conch. tab.* 543.
Petiv. Gaz. tab. 75. *fig.* 2.

Patella testa sulcato-reticulata, vertice recurvo, margine antice sursum fisso. *Müller-zool-dan.* 1. *p.* 83. *t.* 24. *f.* 7. 9.
rar. 1. *p.* 51. *prodr.* 2864.

Patella fissura. Slit. *Br. Zool. t.* 90. *f.* 152. *p.* 144.
Da Costa Br. Conch. 11. 5. *tab.* 1. *fig.* 4.

Lepas d'eau douce reticulé, avec une petite fente, ou entaille. *D'Avila, Cab.* 1. *p.* 428. *No.* 962.

Found on the coasts of Cornwall and Devonshire.

PLATE IV.

STROMBUS PES PELECANI.

CORVORANT'S FOOT.

GENERIC CHARACTER.

Animal a slug. Shell univalve, spiral. The aperture much dilated, and lip expanding into a groove.

SPECIFIC CHARACTER AND SYNONYMS.

Lip expanded, divided into four fingers or prongs.

STROMBUS PES PELECANI: testa labro tetradactylo palmato digitis angulato, fauce lævi. *Gmel.—Lin. Syst. Nat.* 3507. 2.

Cochlea testa longa acuminata, aperturæ labro dilatato, duplici stria antice sinuato. *Lin. Fn. Suec.* 1. *p.* 378. *No.* 1323.

Aporrhais Quadrifidus. Four-fingered. Aporrhais subfuscus, anfractibus nodosis, labro palmato quadrifido. *Da Costa Br. Conch.* 136. 80. *Tab.* 7. *fig.* 7.

Buccinum bilingue striatum labro propatulo digitato. *Lister H Conch. tab.* 8. 65. *fig.* 20.

Strombus canaliculatus, rostratus, ore labioso, striatus, papillosus, auritus aure admodum crassa, et in quatuor appendices breviores expansa, ex candida cinereus. *Gualt.* 1. *Conch. tab.* 53. *fig. A.*

PLATE IV.

Aporrhais Edinburgicus minor nodoso. *Petiv. Gaz. tab.* 79. *fig.* 6.
—*tab.* 127. *fig.* 11.

Strombus Pes pelicani, Corvorant's foot. *Penn. Br. Zool. No.* 94.
tab. 75. *fig.* 94.

Aile de Chauve Souris femelle, Patte D'Oye, ou Hallebarde. *D'Avila Cab. p.* 191. *No.* 344.

A very singular, but not uncommon shell on some of our coasts, as Cornwall, Devonshire, Durham and Sussex. In Carnarvonshire and Merionethshire, in Wales, on the coast of Scotland, and in the Orkneys.

PLATE V.

HALIOTIS TUBERCULATA.

TUBERCULATED SEA EAR.

GENERIC CHARACTER.

Animal a slug. Shell univalve, dilated, or flat, almost open a row of orifices its length, spire near one end turned in.

SPECIFIC CHARACTER
AND
SYNONYMS.

Oblong-oval. Outside furrowed transversely, rugged, tuberculated.

HALIOTIS TUBERCULATA, testa subovata, dorso transversim rugoso tuberculato. *Gmel.—Linn. Syst. Nat. Conch. p.* 3687. *sp.* 2.

Auris marina, major profunde sulcata, magis depressa, fusco colore obsita, intus argentea. *Gualt. Ind. Conch. tab.* 69. *fig.* 1.

Auris marina quibusdam: Patelli fera Rondoletii, λεπὰς ἀγεια Aristotelis; Mother of Pearl, Anglice. *List. H. An. Angl. p.* 167. *tit.* 16. *tab.* 3. *fig.* 16.

Tuberculated Sea Ear. *Pennant Br. Zool. No.* 144. *tab.* 88. *fig.* 144.

Haliotis Vulgaris. Common Sea Ear. *Da Costa, Br. Conch. p.* 15. *pl.* 2. *fig.* 1, 2.

Pennant says this species is frequently cast upon the southern coast of Devonshire. It is common on the eastern coast of Sussex; and on the coast of the isle of Guernsey.—It adheres like limpets, to the rocks, when living.

PLATE VI.

CARDIUM ACULEATUM.

SPIKED COCKLE.

GENERIC CHARACTER.

Two teeth near the beak; and another remote one on each side of the shell.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell nearly heart-shaped. Ribs high, sulcated down the middle, and beset with long canaliculated spines.

CARDIUM ACULEATUM: C. testa subcordata: sulcis convexis linea exaratis: exterius aculeato ciliatis.—*Gmel. Linn. Syst. Conch. p.* 3247. 7.

Pectunculus maximus insigniter echinatus. *Wallace, Orkney. p.* 44.

Cœur de bœuf. *Argenville. Conch. I. p.* 335. *fig. B.*

Cœur de bœuf Epineux. *D'Avilla Cab. p.* 355. *No.* 817.

Concha cordiformis æquilatera, umbone cardium unitò, striata, striis latis canaliculatis muricata aculeis longis et acutis, aliquando recurvis in summitate striarum positis, albida, et parvis maculis luteis obscure fasciata. *Gualt. I. Conch. tab.* 72. *fig.* A.

Cardium Aculeatum. Aculeated. *Penn. Br. Zool.* 137. *tab.* 50. *fig.* 37.

Cardium Aculeatum, Spiked Cockle, A. *Da Costa, Br. Conch. p.* 175.

PLATE VI.

This is the largest of the Cardium, or Cockle genus, that inhabits any of the British shores. It is noted by Wallace as a Shell of the Orkneys; and also by Pennant, who likewise found it off the Hebrides.—It is a thick shell, with high radiated ribs, and beset with large processes or spines that are hollowed. It is covered with a fibrous epidermis, of a blackish colour, varied with light browns; the colour beneath is white, with a faint tint of red, or rose colour.—Marginal circumference ten inches and an half.

This is one of the six rare species Da Costa could not procure for his work, and to which he alludes in the preface*.

* I have described the shells from the objects themselves, except in *six instances*, where I could not procure the originals to complete the series; in which case I have borrowed them from authors of veracity; and the *Reader* will find those species distinguished by Roman characters.

PLATE VII.

LEPAS ANATIFERA.

ANATIFEROUS ACORN SHELL.

GENERIC CHARACTER.

Animal. triton. Shell of many unequal valves; affixed by a stem.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell compressed, consists of five parts, affixed to a pedicle, or membraneous tube.

Lepas Anatifera, testa compressa quinquevalvi lævi pedunculo insidente. *Gmel. Linn. Syst. Nat. Conch. p.* 3211. 13.

Balanus Anatifera compressus quinquevalvis lævis, tubo seu colle membranaceo insidente. *Da Costa, Br. Conch.* 253. 72. *tab.* 18. *fig.* 3.

Concha quinquevalvis compressa, tubulo quodam lignis aut algæ marinæ adhærens; animal sui generis multis cirrhis instructum continens, falso dicta anatifera. *Sibbald. Mus. p.* 170. *No* 2.

Lepas testa compressa basi membrana cylindricea. *Fn. Suec. I. n.* 1350.

Lepas Anatifera cum Tritone. *Stalp. Obs.* 2. *p.* 458. *t.* 15. *Osb. it.* 82.

PLATE VII.

Barnacle Shell, or Concha anatifera. *Merret. Pin. p.* 194.

Balanus Compressa, Flat centre Shell. *Grew. Mus. p.* 148.

Wallace, Orkn. p. 45. *fig.* 1.—*Mus. Petiv. p.* 82. *No.* 802.

Anatiferous. *Br. Zool. No.* 9. *tab.* 38. *fig.* 9.

Concha anatifera marsine læve. *List. H. Conch. tab.* 440. *fig.* 283.

β Concha anatifera subrotunda Bartholini. *Lister. Conch. t.* 439. *f.* 280.

γ Tellina cancellifera striis minimis argutissime signata cinerea. *Gualt. testac. t.* 106. *f. B.*

The Lepas Anatifera is found on the coasts of England and Ireland, but more frequently on that of Scotland. It adheres by means of its branches, or pedicles, to the bottoms of ships, planks, logs, and other substances floating in the water.

This curious marine production consists of many unequal membraneous branches, or arms, at the ends of which the Shells are disposed in an irregular manner; the larger clustering with the smaller in groups, and forming bunches of various sizes. The branches are of a fine red; the Shells of a bluish violet. The animal within is a *triton*, and is furnished with many *cirrhi*, or *tentacula*, with which it takes its food. These tentacula are pectinated like feathers, and hang out of the Shells when open. In the sixteenth century they were, in fact, supposed to be feathers, and hence arose the whimsical belief that a barnacle produced a *goose**. Nor was this a vulgar opinion only; it was sanctioned by the grave details of learned naturalists of that time,

* *Vide* Anas Albifrons, *Plate* 102.—*Hist. Brit. Birds.*

and particularly by *Gerard**, whose observations are generally noticed by authors, in describing this curious species.

* "What our eyes have seene, and hands have touched, we shall declare. There is a small island in *Lancashire* called the *Pile* of *Foulders*, wherein are found the broken pieces of old and bruised ships, some whereof have been cast thither by shipwrake, and also the trunks and bodies with the branches of old and rotten trees, cast up there likewise; whereon is found a certaine spume, or froth, that in time breedeth unto certaine shels, in shape like those of the muskle, but sharper pointed, and of a whitish colour, wherin is contained a thing in form like a lace of silke finely woven, as it were, together, of a whitish colour; one end whereof is fastened unto the inside of the shell, even as the fish of oisters and muskles are: the other end is made fast unto the belly of a rude masse, or lumpe, which in time commeth to the shape and form of a bird. When it is perfectly formed, the shell gapeth open, and the first thing that appeareth is the foresaid lace or string; next come the legs of the bird, hanging out, and as it groweth greater it openeth the shell by degrees, till at length it is all come forth, and hangeth onely by the bill: in short space after it commeth to full maturitie, and falleth into the sea, where it gathereth feathers, and groweth to fowle bigger than a Mallard and lesser than a Goose, having blacke legs and bill or beake, and feathers blacke and white, spotted in such manner as is our *Magpie*, called in some places a Pie-Annet, which the people of *Lancashire* call by no other name than a *tree Goose*: which place aforesaid, and all those parts adjoyning, do so much abound therewith, that one of the best is bought for three-pence. For the truth hereof, if any doubt, may it please them to repaire unto me, and I shall satisfie them by the testimonie of good witnesses." Vide GERARD'S HERBAL, p. 1587, 1588.

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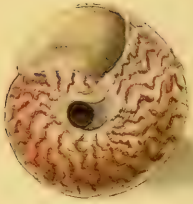
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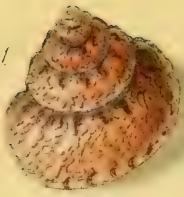
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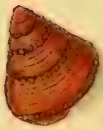
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PLATE VIII.

FIG. I.

TROCHUS MAGUS.

TUBERCULATED TOP SHELL.

GENERIC CHARACTER.

Animal a slug. Shell conic. Aperture nearly triangular.

SPECIFIC CHARACTER
AND
SYNONYMS.

Pyramidal somewhat depressed; base umbilicated. The ridges of the spires rising into distinct tubercles.

Trochus Magus, testa oblique umbillicata: convexa, anfractibus supra obtuse nodulosis.—*Gmel. Linn. Syst. Nat. Conch. p.* 3567.—*Sp.* 7.

Trochus acuminatus, crebris striis transverse et undatim dispositis donatus. The wavy striated trochus, pearl-coloured. *Borlase Cornw. p.* 278. *tab.* 28. *fig.* 6.

T. magus tuberculated. *Penn. Br. Zool. No.* 107. *tab.* 80. *fig.* 107.

Sabot sorciere. *Argenville Conch. I. p.* 263.

Trochus pyramidalis umblicatus, anfractibus supra marginatis, infra nodulosis, albus, rubro variegatus. Tuberculatus. *Da Costa.* 25. *tab.* 3. *fig.* 1? 1.

PLATE VIII.

This Shell is found on the coasts of Sussex, Dorset, Devonshire, Cornwall, Wales, &c.—It is an elegant species, commonly white, variegated with zig-zag stripes and waves of fine red, as shewn at Fig. 1. Sometimes, however, they are of a dull yellowish tint, instead of white, with the stripes of a dark brown. The Shell is of a rich pearl colour when the outer coat is taken off.

FIG. II. III.

TROCHUS CONULUS.

CONULE.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell conic, imperforated at the base. A prominent wreath along the spires.

Trochus Conulus, testa imperforata conica, lævi, anfractibus linea elevata interstinctis. *Linn. Syst. Nat. p.* 1230. *No.* 598.

Trochus pyramidalis parvus, ruberrimus, fasciis crebris exasperatus. *List. H. Conch. tab.* 616. *fig.* 2.

T. Conulus. Conule. *Penn. Br. Zool. No.* 104. *tab.* 80. *fig.* 104.

Trochus Conulus, Conule. *Da Costa, Br. Conch.* 21. *tab.* 2. *fig.* 4. 4.

Linnæus proposes this as a species, (*Conulus*); but at the same time observes, it may be a small variety of the Trochus Zizyphinus,

because, like that species, it is imperforated, and has a prominent ridge on the whirls. Pennant says, it is scarcely distinct from *T. Zizyphinus.* Da Costa thinks it certainly a distinct species.

If the shell, Fig. 104. Pennant, is correct, it is of a larger growth than any of our specimens. Da Costa says, the size seldom exceeds that of a cherry kernel. Not uncommon on the shores of Sussex; and has been received from the coast of Devonshire.

Fig. II. natural size. Fig. III. magnified.

1

2

PLATE IX.

SERPULA SPIRORBIS.

GENERIC CHARACTER.

Animal a Terebella, or whimble worm. Shell tubular, adheres to other bodies, as shells, stones, &c.

SPECIFIC CHARACTER AND SYNONYMS.

Small, orbicular, spiral or wreathed like a cornu ammonis; convex above, flat beneath.

SERPULA SPIRORBIS, testa regulari spirali orbiculata: anfractibus supra introrsum subcanaliculatis sensimque minoribus.—*Gmel. Linn. Syst. Nat. Conch. p.* 3740. 5.

Vermiculus exiguus albus nautiloides, algæ fere adnascens. *List. H. Conch. tab.* 533.—*tab.* 553. *Huddesford's edition.*

Very small Worm Shells. *Dale, Harw. p.* 391. *No.* 2. *and p.* 455. *No.* 2.

Depressed orbicular Cochleæ on Algæ. *Wallis. Northumb. I. p.* 402. *No.* 41.

Serpula Spirorbis, Spiral. *Penn. Br. Zool. No.* 155. *tab.* 91. *fig.* 155.

Serpula Spirorbis, Spiral, *Vermiculaire Nautiloide.*—parva orbiculata et Spirali, ammoniæ instar convoluta. *Da Costa Br. Conch.* 12.—*tab.* 2. *fig.* 11.

This species is found in abundance on most of the British shores; it adheres to shells, stones, claws of lobsters, &c. but chiefly to the leaves of *Fucus serratus*, and other sub-marine plants. It is a strong Shell, white, and without polish; is never complicated, or laid one on another, but are dispersed singly over whatever substances they are affixed to. Petiver calls it the Wrack Spangle, because it appears like so many white spangles on the dark-coloured leaves of the Wracks.—A piece of this sub-marine plant, with the Shells adhering to it, is a very pleasing object for the opake microscope.

Fig. I. represents the natural size of the Shells. Fig. II. shews one magnified.

Obs. Dr. Lister, in his original edition, ranked this *Shell* among the *Worm-Shells* (tab. 533. fig. 5.) calling it *Nautiloides*, only from its wreathed form like to a *Nautilus*; but his re-editor, the Rev. Mr. Huddesford, has been pleased to reverse the Doctor's *arrangement*, by transposing it to the *Nautilus family*, where it now is (tab. 553), and thereby fixes an error of arrangement on *Dr. Lister*'s memory, which that excellent and accurate conchologist was not guilty of. DA COSTA, *page* 23.

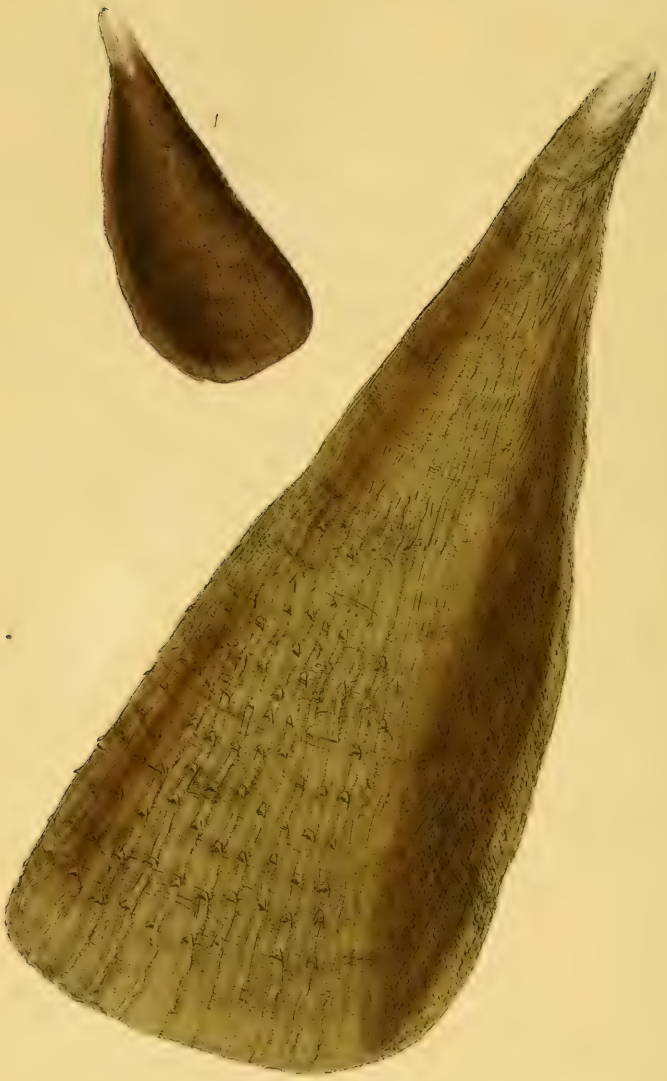

PLATE X.

PINNA MURICATA.

THORNY WING, OR SEA HAM.

GENERIC CHARACTER.

Hinge without a tooth, and placed on one side. Valves equal; open, or gape at the bottom.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell triangular, striated; the striæ beset with acute, ovated, and concave scales or prickles.

PINNA MURICATA: testa striata, squamis concavis ovatis acutis. *Gmel. Lin. Syst. Nat. Conch. p.* 3364. *Sp.* 4.

Pinna tenuis, striata, muricata. *List. H. Conch. tab.* 370. *fig.* 210.

Pinna fragilis. Brittle. *Penn. Br. Zool. No.* 80. *tab.* 59. *fig.* 80.

Pinna tenuis costis longitudinalibus muricatis. Muricata, Thorny. *Da Costa, tab.* 16. *fig.* 3. *p.* 240.

Pinna recta transversim et directe striata, et rugosa, striis in summitate aculeis exasperatis, ex fusco rubro nigricans. *Gualt.* 1. *Conch. tab.* 79. *fig.* D.

Seb. Mus. 3. *t*, 92. *ser.* 1. *f.*

Concha Pinna. *Hasselq. it.* 447. *n.* 137.

Pinna lata altera. *Rumf. Mus. t.* 46. *f.* M.

Dr. Rutty mentions a Pinna ten inches long and five broad, caught near the Skerries, in Ireland; and Mr. Pennant "saw specimens of vast *Pinnæ*, found among the farther *Hebrides*, in the collection of Dr. *Walker*, at *Moffat*;" but it is uncertain of what species either of these were: Mr. Pennant says, "they were very rugged on the outside, but cannot recollect whether they were of the kind found in the *Mediterranean* or West Indies*."

The only British species of Pinna we are acquainted with, is the *P. Muricata* of Linnæus, or P. Fragilis of Pennant, and that is very rare. The latter author describes it from a specimen in the PORTLAND cabinet, which had been fished up at Weymouth, in Dorsetshire. Da Costa says, he has seen a very small one (of the same species) from the coast of Wales.—Both of these are represented in the annexed plate.

This Shell is extremely thin and brittle, and gapes open at the broadest end. It is semi-pellucid, and of a horn colour; the outside marked with longitudinal ribs, roughened with rows of small prickles†. The inside is smooth, of a pale horn colour also, with a pearly lustre towards the top.

* This Author, however, arranges it as a new British species, without further description:—as, Pinna Ingens—Great Nacre.

† In Pennant's figure these are obsolete.

PLATE XI.

BUCCINUM LAPILLUS.

MASSY, OR PURPLE WHELKE.

GENERIC CHARACTER.

Aperture oval, ending in a short canal.

SPECIFIC CHARACTER.

Ovated, terminates in a sharp point, spirally ridged. Pillar lip broad.

BUCCINUM LAPILLUS: testa ovata acuta striata lævi, columella planiuscula.—*Lin. Syst. Nat. p.* 1202. *No.* 467.

Cochlea testa crassa ovata utrinque producta; spiris quinque spiraliter sulcatis; aperturæ labro undulato. *Faun. Suec. p.* 378. *No.* 2167.

Buccinum minus, albidum, asperum, intra quinas spiras finitum. *List. H. An. Ang. p.* 158. *tit.* 5. *tab.* 3. *fig.* 3.

Buccinum brevi rostrum supra modum crassum, ventricosius, labro denticulato: Purpura Anglicana. *List. H. Conch. tab.* 965. *fig.* 18.—ET B. brevi rostrum, album denticulo unico ad imam columellam. Purpura Anglicana. *Fig.* 19.

Purple marking Whelke. *Borlase Corn. p.* 277. *tab.* 28. *fig.* 11.

English purple. *Smith Cork. p.* 318.

Horse wrinkles. *Smith Waterford. p.* 272.

Small purple Whelke. *Wallis Northumb. p.* 401.

Buccinum lapillus, Massy. *Penn. Br. Zool.* 4. *No* 89. *tab.* 72. *fig.* 89.

PLATE XI.

Buccinum canaliculatum minus, crassum varicolor, striatum, seu Purpura Anglicana. Purpuro-buccinum. *Da Costa Br. Conch. tab.* 7 *fig.* 1. 2. 3. 4. 9. 12.

This is a strong, thick shell, generally about one inch and a half length, of a full pyramidal shape, with a point acute; it has five spires, furrowed: the ridges of the lower wreath notched, or scaled, and very rough. Within the mouth it has five long parallel teeth.

The colours are various, often of a simple and uniform yellowish brown, sandy, or clay colour; sometimes quite white, or white tinged with violet, and fasciated with yellow or brown; the latter are the most elegant varieties of B. Lapillus.—These shells are found in great abundance near low water-mark, on many of the shores of Great-Britain. It is one of the species that yields the purple dye analogous to the *purpura* of the ancients; and though the value of its dye has been long superseded by the cochineal insect, the shells that produced it are objects of curiosity. The Tyrian purple was the most admired, and is known to have been extracted from a species of the *Murex*; but other purples of inferior lustre are also mentioned by the ancients. Da Costa imagines that the liquor of this Whelke (Buccinum Lapillus) was a valuable purple to the ancient English, and quotes the authority of *Bede*, who lived about the seventh century, for this opinion. "There are," says *Bede*, "snails in very great abundance, from which a scarlet or crimson dye is made, whose elegant redness never fades, either by the heat of the sun, or the injuries of rain, but the older it is, the more elegant*."

* Sunt cochleæ, satis superque abundantes, quibus tinctura coccinei coloris conficitur. Cujus rubor pulcherrimus nullo unquam solis ardore, nulla valet pluviarum injuria pallescere; sed quo vetustior, eo solet esse venustior.—*Bede, Hist. Eccles.* (edit. opt.) l. i. c. i. p 277.

PLATE XI.

In 1684, Mr. Cole, of Bristol, described the process of extracting the *purple* of this shell, in the Philosophical Transactions. His account is as follows:

" The Shells being harder than most of other kinds, are to be broken with a smart stroke with a hammer, on a plate of iron, or firm piece of timber (with their mouths downwards) so as not to crush the body of the fish within; the broken pieces being picked off, there will appear a white vein, lying transversely in a little furrow, or cleft, next to the head of the fish, which must be digged out with the stiff point of a horse-hair pencil, being made short and tapering. The letters, figures, or what else shall be made on the linnen (and perhaps silk too) will presently appear of a pleasant light green colour, and if placed in the sun, will change into the following colours, i. e. if in winter, about noon; if in summer, an hour or two after sun-rising, and so much before setting; for, in the heat of the day in summer, the colours will come on so fast, that the succession of each colour will be scarcely distinguished. Next to the first light green, it will appear of a deep green, and in a few minutes change into a sea-green; after which, in a few minutes more, it will alter into a watchet-blue; from that, in a little time more, it will be of a purplish-red; after which, lying an hour or two, (supposing the sun still shining) it will be of a very deep purple-red, beyond which the sun can do no more.

" But then the last and most beautiful colour, after washing in scalding water and soap, will (the matter being again put into the sun or wind to dry) be of a fair bright crimson, or near to the prince's colour, which, afterwards, notwithstanding there is no use of any stiptick to bind the colour, will continue the same, if well ordered,

as I have found in handkerchiefs that have been washed more than forty times; only it will be somewhat allayed from what it was after the first washing. While the cloth so writ upon lies in the sun, it will yield a very strong and fœtid smell, as if garlick and assafœtida were mixed together."

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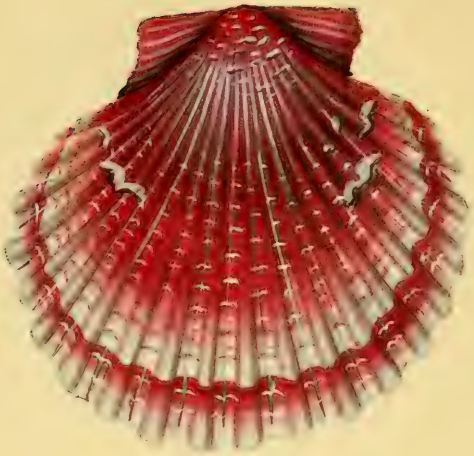

PLATE XII.

OSTREA SUBRUFUS.

GENERIC CHARACTER.

Animal a Tethys. Shell bivalve unequal. The hinge without a tooth, having a small oval cavity.

SPECIFIC CHARACTER AND SYNONYMS.

Shell thin. Twenty longitudinal rays, finely striated; ears unequal; colours various; generally red.

PECTEN TENUIS, subrufus, maculosus, circiter viginti striis majoribus, at lævibus, donatus. *List. H. An. Angl. p.* 85. *tab.* 5. *fig.* 30.

PECTEN SUBRUFUS. *Penn. Br. Zool. No.* 63. *tab.* 60. *fig.* 63.

PECTEN PICTUS: mediocris, fere æquivalvis, tenuis, variis coloribus perbelle variegatus. *Da Costa. Br. Conch. p.* 144. *fp.* 3.

Pectunculus pennatus striis dense notatus, luteo purpurascens. Pecten altis striis albo purpureis transverse variegatis insignis; & Pectunculus purpurascens vittis albis circularibus variegatus. *Borlase Cornw. p.* 277. *tab.* 28. *fig.* 18, 21 *and* 22.

PLATE XII.

This elegent species is found on several of the shores of Great Britain and Ireland, particularly those of Cornwall, Dorset, and Northumberland. It is generally about two inches and an half in length. Shell thin and rather convex. The inside is smooth and glossy, and commonly white, though sometimes of a brownish colour. The colours of the outside very various and beautiful. Da Costa enumerates the chief varieties, as, 1. *almost white*, and *white* charged with *brown*, *red*, or *purple*; 2. *uniform* bright *yellow*, and pale *yellow*, with *white*; 3. *uniform brown*, and *brown*, *red*, or *purplish* grounds with *white*, &c. all these colours are elegantly blended and variegated, sometimes marbled or mottled or disposed in *zones*, *girdles*, broad longitudinal rays, &c.

Fig. 1. represents a fine coloured specimen of the variegated red and white kind. Fig. 2. The uniform deep orange, which we apprehend is less common.

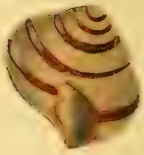

PLATE XIII.

HELIX NEMORALIS.

GIRDLED SNAIL.

GENERIC CHARACTER.

Aperture or mouth contracted and lunated.

SPECIFIC CHARACTER
AND
SYNONYMS.

Imperforated, subrotund, thin, pellucid. Mouth semi-lunar; generally girdled with streaks: and of various colours.

HELIX NEMORALIS: testa imperforata subrotunda lævi diaphana fasciata, apertura subrotundo-lunata. *Linn. Faun. Suec.* 2186.—*Gmel. Linn. Syst. Nat. Conch. p.* 3647. 108.

Cochlea citrina aut leucophæa, non raro unicolor, interdum tamen unica, interdum etiam duobus, aut tribus, aut quatuor plerumque vero quinis fasciis pullis distincta. *List. H. An. Angl. p.* 116. *tit.* 3. *tab.* 2. *fig.* 3.

Cochlea imperforata, interdum unicolor, interdum variis fasciis depicta. FASCIATA girdled. *Da Costa, Br. Conch. p.* 76. *sp.* 41.

Helix Nemoralis, variegated. *Penn. Br. Zool. No.* 131.

PLATE XIII.

Prof. Gmelin, in the last edition of the Systema Naturæ, enumerates no less than thirty-one varieties of this beautiful land Shell. Da Costa describes six principal varieties in his British Conchology *. Some of the kinds are rare, others extremely common, living in trees, hedges and gardens. It is a widely diffused species being found in every part of Europe as well as Great Britain.

* 1. *Uniform*, of a *pale citron* colour, or *yellow* of *different shades:* the *mouth* finely bordered within and without, with a dark brown, and with a brownish shade or cloud on so much of the body wreath as lies within the mouth, or from the outer lip quite across to the edge of the pillar. Pretty *frequent.*

2. *Uniform*, of a *flesh colour* of *different shades*, with the mouth in like manner bordered with dark brown ; and the body wreath also shaded exactly the same as the last. .Not very *frequent.*

3. *Uniform*, of *different degrees* of *brown*, with the same circumstances. Common.

4. The *ground yellow* or *greenish yellow* of *different shades*, with a regular *single* ſpiral *girdle*, or according to the turn of the wreaths, in the very *middle* of each wreath, with the brown border round the *mouth*, and the shade or cloud on the *body*. Pretty frequent.

5. *The ground fleſh coleur* of *different shades*, variegated in like manner with a *single girdle*, the *border* round the *mouth*, and on the *body*. *Not very frequent.*

6. *Many* dark-brown spiral *girdles* on the *yellow*, *fleſh*, or *brownish grounds*, sometimes to *five girdles* at least on the body wreath ; sometimes only *four*. Theſe *girdles* are of different *breadths*, some being very *narrow*, like streaks, others broader, like belts ; and others *so extremely broad* as to cover the parts, and make the *ground colour* only appear in *girdles*. They are also not equidistant or regularly set ; but *the very broad girdles* lie most generally on the upper part of the shells. These *girdled sorts* are the *most frequent* or *common*. Da Costa *Br. Conch. p.* 78.

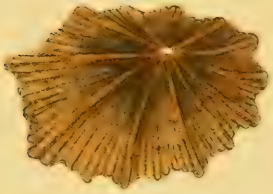

PLATE XIV.

PATELLA VULGATA.

COMMON LIMPET.

GENERIC CHARACTER.

Animal Limax. Shell univalve, subconic, without spires.

SPECIFIC CHARACTER
AND
SYNONYMS.

Oblong ovoid with about fourteen obsolete angles, margins deep or dilated.

PATELLA VULGATA: testa subangulata: angulis quatuor decim obsoletis margine dilato acuto.—*Gmel. Linn. Syst. Nat. Conch. p.* 3697.—*Sp.* 23 *β Schroet. n. Litterat* 3. *p.* 62. *n.* 117 *γ Knorr. Vergn* 6. *t.* 27. *f.* 8.

Patella integra ex livido cinerea, striata. DA COSTA. *Br. Conch. p.* 3. *pl.* 1. *fig.* 1, 2, 8.

Patella ex livido cinerea striata. *List. Hist. Anim. Angl. p.* 195. *tit.* 40. *tab.* 5. *fig.* 40.

Patella Vulgata, Common. *Penn. Br. Zool.* 4. *No.* 145. *tab.* 89. *fig.* 145.

Patella integra. *Klein, Ostracol. p.* 115. §. 283. *No.* 10.

Lepas *Argenville, p.* 21.

PLATE XIV.

The Limpet is common on all the European ſhores. The outside is generally encrusted with filth, balani, &c. beneath which, it has an epidermis of a blackish colour. The shells vary exceedingly in colours, not only in the different stages of growth, but also in the adult state. When young, the colours are remarkably vivid and elegantly disposed; the shell flat and the margins deeply crenated: those of full growth are on the contrary very conic and the colours less brilliant. The margins irregular and the ridges more obsolete. Some authors have considered several varieties as distinct species. Da Costa among others, deems the *Patella depressa* of Pennant, no other than a young variety of the common kind.

PLATE XV.

BUCCINUM LINEATUM,

LINEATED.

GENERIC CHARACTER.

Whelkes whose mouths are cut short at top, for the gutter or beak does not ascend, but bends and falls on the back, oblique or awry, exactly like the mouth of a soal or flat fiſh. *Da Costa.*

SPECIFIC CHARACTER.

Small, pyramidal, or sharp pointed at bottom. Dark brown, lineated ſpirally with white.

BUCCINUM LINEATUM: recurvirostrum minimum pullum, lineis albidis spiraliter distinctum. *Da Costa, Br. Conch. p.* 130. *sp.* 77.

This species is found in great abundance on the coast of Cornwall. The annexed plate exhibits several magnified figures of the most elegant varieties, together with the natural size.

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PLATE XVI.

FIG. I.

NERITA PALLIDULUS.

PALE NERIT.

GENERIC CHARACTER.

Globose. Aperture semiorbicular.

SPECIFIC CHARACTER

Semitransparent. Wreaths rather prominent. Mouth semilunar, very patulous. Umbilicus large.

Nerita Corneus, spira paululum exserta. Pallidulus *Da Costa. p.* 51. *Sp.* 29.

Da Costa says " This species is rare, for I have only received some few shells from the coasts of Kent and Dorset." He also considers it an undescribed shell.

PLATE XVI.

FIG. II. II.

NERITA FLUVIATILIS.

RIVER NERIT.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Small, spotted, streaked, and reticulated.

NERITA FLUVIATILIS; N. testa rugosa labiis edentulis.—*Linn. Syst. Nat. p.* 125. 3. *No.* 723.

Nerita parvus fluviatilis, elegantur maculatus, fasciatus, aut reticuculatus. Flaviatilis. *Da Costa Br. Conch, p.* 48. *Sp.* 27.

Nerita fluviatilis, é cœruleo virescens, maculatus, operculo subrufo lunato et aculeato datus. *List. H. An. Angl. p.* 136. *tit.* 20. *tab.* 2. *fig.* 20.

Nerita fluv. exiguus, recticulate variegatus. Small netted Thames nerit. *Muſ. Petiv. p.* 67. *No.* 718.

Nerita fluviatilis, River. *Penn. Br. Zool. No.* 142. *tab.* 87. *fig.* 142.

This species is very frequent in rivers. It is small; of an ovoid shape, and very elegantly variegated with black, white, red, green, &c,—The star denotes the natural size of the shell.

PLATE XVII.

VENUS CHIONE.

GENERIC CHARACTER.

Bivalve. Hinge furnished with three teeth; two near each other, the third divergent from the beaks.

SPECIFIC CHARACTER AND SYNONYMS.

Shell smooth with fine transverse wrinkles, a strong cartilage on one slope, and a long pointed oval depression on the other.

VENUS CHIONE: testa transverse subrugosa lævi, cardinis dente posteriori lanceolato. *Gmel. Linn. Syst. Nat. Conch. p.* 3272. *sp.* 16.

P. GLABER, SMOOTH Pectunculus major crassus, politus, castaneus, lucide radiatus. *Da Costa. Br. Conch. p.* 184. *sp.* 22.

Pectunculus maximus crassus, lævis fere radiatus. *Mus. Petiv. p.* 86. *No.* 833.—*Curvirostrum. Leigh. Lancashire. tab.* 3. *fig.* 5.

Venus Chione, β *Rumf. Mus. t.* 42. *f.* G.

Venus Chinone, γ *Chemn. Conch.* 6. *t.* 33. *f.* 334.

"This species," says Da Costa, "is rare in England. I found it at Mount's Bay in Cornwall, where the fishermen told me they call

it *Queen Fish*; it is also found near *Fowey* and other shores of that county. I have seen some from *Weymouth*, and Mr. Petiver received it from the iſland of Purbeck, in Dorsetshire. Dr. Leigh mentions that it is got on the coasts of Cheshire."

Pennant has not noticed this Shell. Linnæus described it as an Asiatic species in the Systema Naturæ, but adds it is perhaps an European species also. In the last edition by Gmelin, it stands expressly as a British Shell. *Habitat in Mari Britannico, &c.*

This Shell is thick, strong and heavy: the outside smooth and glossy, with numerous concentric transverse wrinkles, and several faint rays in a longitudinal direction. The margins are plain. The inside milk white and glossy.

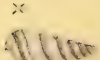

PLATE XVIII.

TURBO FASCIATUS.

FASCIATED.

GENERIC CHARACTER.

Animal Limax. Univalve, spiral, or of a taper form. Aperture somewhat compressed, orbicular, entire.

SPECIFIC CHARACTER
AND
SYNONYMS.

Six spires. White marbled or fasciated with black.

Turbo Fasciatus. Fasciated. *Penn. Br. Zool. No.* 119. *tab.* 82. *fig.* 119.

Buccinum exiguum fasciatum et radiatum. *List. H. Conch. tab.* 19. *fig.* 4.

This is one of the six species Da Costa marks with a roman letter, because he could not procure the originals to figure and describe in the British Conchology. It is figured in the British Zoology of Pennant, who says it is very frequent in *Angleſea*, in sandy soils near the coast.

PLATE XIX.

FIG. I. I.

TELLINA BIMACULATA.

DOUBLE SPOT TELLEN.

GENERIC CHARACTER.

The hinge usually furniſhed with three teeth. Shell generally sloping on one side.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Subrotundand somewhat triangular, smooth and whitish. Two oblong sanguineous red spots on the inside.

TELLINA BIMACULATA: testa triangulo-subrotunda latiore lævi albida: intus maculis duabus sanguineis oblongis. *Linn. F. Suec.* 11. *No.* 2135.—*S. N. p.* 1120.

T. minima lævis alba, intus maculis duabus sanguineis oblongis notata. Binaculata. *Da Costa. Br. Conch. p.* 213. 45.

This singular species is found on the shores of Lancashire and Hampshire.

PLATE XIX.

FIG. II. II.

TELLINA TENUIS.

THIN TELLEN:

SPECIFIC CHARACTER

AND

SYNONYMS.

Thin. Subrotund, glossy ;—colour sometimes red

TELLINA PLANATA: Concha testa subrotunda glabra incarnata. *Linn. F. Suec.* 1. *p.* 381. *No.* 1335.

Tellina testa-ovata compressa, transversim substriata lævi: marginibus acutis, &c. *S. N. p.* 1117. *No.* 52.

Tellina valde tenuis, parva, subrotunda, plerumque rubra. Tenuis. Thin. *Da Costa. Br. Conch. p.* 210. *Sp.* 43.

Tellina parva, intus rubra, ad alterum latus sinuosa. *List. Conch. tab.* 405. *fig.* 250.

Tellina lævis intus et extra rubra, ad latus sinuosa. *Ib. fig.* 251.

Tellina planata. *Plain. Penn. Br. Zool. No.* 29. *tab.* 48. *fig.* 29.

Found on many of our shores, as Kent, Essex, Cornwall, &c. Some of the varieties are extremely delicate, and prettily streaked with pale red and white : many are entirely white, or white tinged with yellow. Some are orange colour ; but the rarest kind is deep violet or purple.

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PLATE XX.

FIG. I. I.

NERITA GLAUCINA.

CHAIN NERIT.

GENERIC CHARACTER.

Globose. Aperture semiorbicular.

SPECIFIC CHARACTER
AND
SYNONYMS.

Umbilicated, glossy. Spires swelled, obtuse. Umbilicus large and deep with the inner lip greatly spread on the body wreath. A chain of short brown marks along the spires.

NERITA GLAUCINA: testa umbilicata lævi, spira obtusiuscula, umbilico semiclauso: labio gibbo dicolore. *Linn. Syst. Nat. p.* 1251. *No.* 716.

Nerita Glaucina. Livid. *Penn. Br. Zool. No.* 141. *tab.* 87. *fig.* 141.

Cochlea Catena. Chain Nerit. C. Umbilicata albo rufescens fasciis maculatis, maxime ad imos orbes distincta. *Da Costa, Br. Conch. p.* 83. *sp.* 45.

This Shell is not uncommon on the shores of the Essex and Kentish coasts; on the sandy shores of Lincolnshire, Dorsetshire, Devonshire,

Cornwall, &c. The same species is found in the Mediterranean and the West Indies. The colours are very fine, particularly in the young Shells.

FIG. II. II.

NERITA LITTORALIS.

SPECIFIC CHARACTER AND SYNONYMS.

Shell thick, smooth vertex flat. Inner lip spread obliquely.

NERITA LITTORALIS: T. testa lævi, vertice carioso, labiis edentulis.
Lin. Syst. Nat. p. 1253. *No.* 724.

Nerita vulgaris, unicolor, flavus aurantiacus, vel fuscus, aut fasciatus, aut reticulatim variegatus. Littoralis.
Da Costa, Br. Conch. p. 50. *sp.* 28.
List. H. Conch. tab. 697, *fig.* 39.

Nerita Littoralis. Strand. *Pen. Br. Zool. No.* 143. *tab.* 87. *fig.* 143.

This Shell is very common on all the British coasts, particularly the fine yellow kinds. Those with broad bands or girdles, and also such as are reticulated with dark greenish colour on a light ground, are rare varieties of this species.

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PLATE XXI.

PATELLA HUNGARICA.

LARGE FOOL'S CAP.

GENERIC CHARACTER.

Animal Limax. Shell univalve, subconic, without spires.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell entire, conic, acuminated, striated, with the vertex turning down, or hanging over one side.

PATELLA UNGARICA: testa integra conico acuminata striata vertice hamoso revoluto. *Linn. Syst. Nat. p.* 1259. *No.* 761.

PATELLA HUNGARICA. Bonnet. *Penn. Br. Zool. No.* 147. *tab.* 90. *fig.* 147.

Patella integra, albescens, striata, vertice spirali, intus rosacea. *Da Costa, Br. Conch. p.* 12. *sp.* 6.

Lepas Bonnet de Dragon. *D'Avila, Cab. I. p.* 86. 87. *No.* 32. 34.

" This species is only found on the *Cornish* coast, and even is very scarce there, being most generally dredged some miles from the shore; for the Shell is so thin, that it will hardly bear rolling from its native spot to the beach. It is generally found affixed to a species of *escallops*, called *frills*, in Cornwall." *Da Costa.*

PLATE XXI.

FIG. II. II.

PATELLA PARVA.

SMALL LIMPET.

SPECIFIC CHARACTER.

Shell small, entire, without gloss, whitish, faintly rayed with red.

PATELLA PARVA: integra, parva, sublævis, albescens radiis rubentibus. *Da Costa Br. Conch. p.* 7. *sp.* 3.

Da Costa considers this as a nondescript species; he received several specimens of it from the coasts of Dorsetshire, but never from any other of the British shores, and therefore proposes it as a scarce Shell.

It is rather larger than a pea, thin, and semipellucid; of a depressed conic shape, and the vertex inclining very much to one side. The inside is whitish, outside the same, with a few longitudinal rays of pale red, or purplish brown.

PLATE XXI.

FIG. III. III.

PATELLA RETICULATA.

RETICULATED MASK LIMPET.

SPECIFIC CHARACTER
AND
SYNONYMS.

Small, ash colour, reticulated. Vertex perforated.

P. LARVA RETICULATA. Patella parva cinerea, vertice perforata. *Da Costa Br. Conch. p.* 14. *sp.* 7.

PATELLA GRÆCA. STRIATED. *Penn. Br. Zool. No.* 153. *tab.* 89. *fig.* 153.

PATELLA CLATHRATA. *Klein. Ostrac. p.* 116.—284. *No.* 2. *List. H. Conch. tab.* 527. *fig.* 2.?

Pennant says, this species inhabits the west of England. The specimens in Da Costa's collection were also fished up near Weymouth, in Dorsetshire. This is a rare Shell, and is not known to inhabit any other of the British coasts.

This Shell is about three quarters of an inch in length, half an inch in breadth, and one quarter of an inch in heighth. The outside is deeply reticulated, or wrought with prominent longitudinal and transverse ridges. The vertex inclines to one end, and is perforated; its aperture is of an oblong form, and about one tenth of an inch in length.

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PLATE XXII.

FIG. I. I.

TURBO CINCTUS.

GIRDLED WREATH SHELL.

GENERIC CHARACTER.

Animal Limax. Univalve, spiral, or of a taper form. Aperture somewhat compressed, orbicular, entire.

SPECIFIC CHARACTER
AND
SYNONYMS.

Whitish, variegated with brown. Spires swelled and ridged: two particularly large, broad, roundish ridges, in the middle of each spire.

Turbo Cinctus: strombiformis medius albus pullo variegatus, anfractibus porcis tumidis latis & spirabilibus cinctus. *Da Costa Brit. Conch. p.* 114. *sp.* 66. *Tab.* 7. *fig.* 8.

Turbo Exoletus. *Linn. Syst. Nat.* ?

This is a very rare Shell. Da Costa says he has received it only from the coasts of Lincolnshire and Lancashire.

PLATE XXII.

FIG. II. II. II.

TURBO TEREBRA.

AUGER SHELL.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell slender. Spires twelve, striated spirally. Six of the *striæ* rather prominent.

TURBO TEREBRA: testa turrita anfractibus carinis sex acutis. *Gmel. Linn. Syst. Nat. Conch. p.* 3608. *sp.* 81.

Cochlea testa longa subulata, spiris, duodecim striatis. *Linn. Faun. Suec.* 1. *p.* 378. *No.* 1322. 2. *No.* 2171.

Buccinum tenue, dense striatum, duodecim minimum spiris donatum. *List. H. An Angl. p.* 161. *tit. tab.* 3. *fig.* 8.

Strombiformis medius albus rufo variegatus, anfractibus striatis. Terebra. *Da Costa Brit. Conch. p.* 112. *sp.* 65.

Turbo Terebra. Auger. *Penn. Br. Zool. No.* 113. *tab.* 81. *fig.* 113.

The colours in this species vary exceedingly; the ground colour is generally white, or cream colour, with the streaks, dots, and markings of brown, pale red, or orange. The length is from one inch and an half to two inches or more.

It is not uncommon on many of the British coasts*. Adanson has a variety of it (β) from Senegal; and other authors mention the same species as a native of the East Indian and African seas.

* This species is not uncommon on many of our coasts, and in great plenty on some, as at the *Scilly Islands*; at *Liverpool*, where they are called Cockspurs; at *Scarborough*, after winter storms, according to Lister; at *Exmouth*, and other places on the western shores; and I have received very fine and perfect ones from the coasts of Wales, as *Flintshire*, *Pwlhely* in *Carnarvonshire*, and *Barmouth* in *Merionethshire*. It is also a Shell of the Orkneys. *Da Costa*.

PLATE XXIII.

MYTILUS MODIOLUS.

GREAT MUSCLE.

GENERIC CHARACTER.

The hinge toothless, and consists of a longitudinal furrow.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Shell large, blackish: one side angulated near the middle, the other straight; but gibbous towards the beaks, and blunted or obtuse at the upper end.

MYTILUS MODIOLUS: testa lævi, margine anteriore carinato, natibus gibbis, cardine sublaterali.—*Gmel. Linn. Syst. Nat. Conch. p.* 3354. *Sp.* 14.

Mytilus magnus nigrescens. Modiolus. *Da Costa. Br. Conch. p.* 219. *sp.* 49. *tab.* 15. *fig.* 5.

Musculus papuanus authorum. *Rumph. Mus. tab.* 46. *fig. B.*

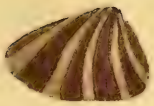
M. Modiolus, Great Muſcle. *Penn. Br. Zool. p.* 113. 77. *tab.* 46. *fig.* 77.

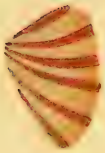
Musculus papaunus. *Adans. Seneg.* 1. *t.* 22. *f. C.*
List. H. Conch. tab. 359. *fig.* 198.
Gualt. test. t. 91. *H. L.*
Rumph. Mus. t. 46. *f. B. C? D?*

PLATE XXIIII.

Mytilus Modiolus is the largest species of this genus that inhabits the British shores; being from six to seven inches in length, and three in breadth. It is a strong and heavy shell; the outside is of a blackish colour inclining to purple. It is covered with a thin filmy brown epidermis, and often with balani and other remains of crustaceous animals. Within, it is smooth and pearly, and sometimes richly coloured with a variety of vivid hues, in which red, purple and green chiefly predominate. These shells lie only in deep waters, and are never cast upon shore; but sometimes they seize the bait of the ground lines, and are hauled up by the fishermen.

Da Costa received the M. Modiolus, of a small size, from the Margate flats in Kent; from Cornwall and other English shores. The specimen figured in the annexed Plate is from Scarborough in Yorkshire; those found on the coast of Wales and Scotland, and particularly the Orkneys, are not inferior in point of size to those from Scarborough.





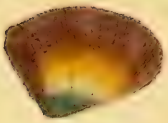


PLATE XXIV.

DONAX CRENULATA.

PURPLE or TRUNCATED PURR.

GENERIC CHARACTER.

Bivalve. One side very obtuse, margin crenated. Hinge various, generally of two teeth.

SPECIFIC CHARACTER AND SYNONYMS.

One side very blunt or truncated: thickly striated longitudinally. Margin serrated.

DONAX RUGOSA: testa antice rugosa gibba, marginibus crenatis. *Linn. Syst. Nat. p.* 1127. *No.* 104. *Mus. reg. p.* 494. *No.* 50.

DONAX DENTICULATA: testa anterius obtusissima: labiis transverse rugosis, margine denticulato, nymphis dentiformibus. *Gmel. Linn. Syst. Nat. Conch. p.* 3263. *sp.* 6.

Cuneus ex albo & violaceo radiatus, intus vero violaceus, latere altero gibbo & truncato. TRUNCATUS. Truncated Purr. *Da Costa, Br. Conch. p.* 205. *sp.* 40.

Tellina intus ex viola purpurascens, in ambitu serrata. *List. Hist. An. Angl. p.* 190. *tit.* 35. *tab.* 5. *fig.* 35.

PLATE XXIV.

Tellina crassa, admodum leviter striata, intus violacea. *List. H. Conch. tab.* 375. *fig.* 216.—376.—218. 219.

DONAX DENTICULATA. Purple. *Penn. Br. Zool. No.* 46.

This is a very elegant and remarkable species: the annexed Plate exhibits five of its most singular varieties. The young shells are sometimes quite white, or white faintly marked with brown, red or violet; the old shells are of a deep violet without, and variously marked with the same on the outside. Very common on the western coasts of England, and also on those of Ireland and Scotland.

PLATE XXV.

FIG. I. I.

MYTILUS DISCORS.

DIVIDED MUSCLE.

GENERIC CHARACTER.

The hinge toothleſs, and consits of a longitudinal furrow.

SPECIFIC CHARACTER.
AND
SYNONYMS.

Shell oval, somewhat diaphanous and horny. Outside divided into three compartments; the two exterior striated longitudinally; the middle transversely, with extremely fine striæ.

MYTILLUS DISCORS: testa ovali cornea subdiaphana, antice longitudinaliter posterius transversaliter striata.—*Gmel. Linn. Syst. Nat. Conch. p.* 3356. *sp.* 21.

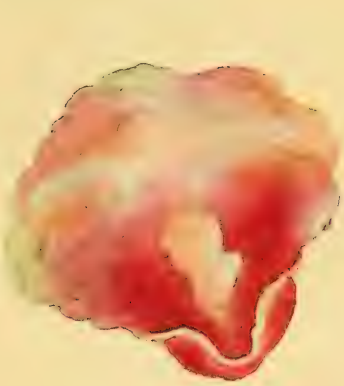
Mytillus minor tenuis areis tribus distinctus. Discors. *Da Costa, Br. Conch. p.* 221. *sp.* 51.

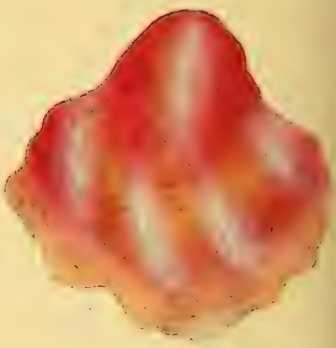
The discovery of this rare species on our coast, is ascribed by Da Costa to Dr. Richard Pultney, F. R. S. of Blandford in Dorſetshire; he found it on an *ascidia* at Weymouth in that county. It

has also been met with in Greenland, Iceland, and Norway; and is likewise noted as a native of the Southern Ocean *.

The shell found on the British coast is very small, brittle, and semi-transparent. The outside is of a brownish or rosy colour, tinged with green. The inside smooth, glossy, and somewhat pearly.

* *Gmelin.*—Probably this variety found in the South Seas is that which *Da Costa* notices in his description of Mytilus discors. "All that *Linné* has *seen*," (of Mytilus discors) "as well as all those found on our *coasts*, are very small, thin, and delicate; but a kind no wise different, except in *size* and *colour*, being larger than a great walnut, and quite brown, was brought from the southern hemisphere by that great and national honor, Capt. Cook, the circumnavigator, in the late expedition for the discoveries of new countries. These also were entirely *unknown* to all our collectors; and, as they only differ in *size*, *thickneſs*, and *colour*, but are exactly the same in structure, way of life, and other particulars as theſe of our coasts, is it a *distinct species* or *variety* only?"—As a figure of this very analogous kind may be acceptable, it is introduced in the annexed Plate at fig. 2.





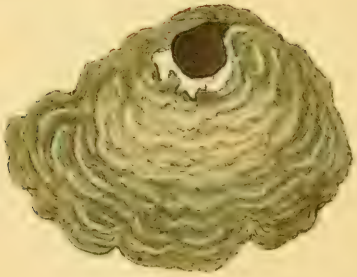


PLATE XXVI.

ANOMIA EPHIPPIUM.

LARGER OR ONION-PEEL ANOMIA.

GENERIC CHARACTER.

Bivalve. Valves unequal: one gibbous towards the beak, the other flat, and perforated near the hinge.

SPECIFIC CHARACTER

AND

SYNONYMS.

Roundish: pellucid, much wrinkled. Flat valve perforated.

ANOMIA EPHIPPIUM: testa suborbiculata rugosa plicata planiore perforata. *Gmel. Lin. Syst. Nat. Conch. p.* 3340. *sp.* 3.

Anomia. Subrotunda plicata pellucida levis, valva planiore perforata. Tunica cepæ. *Da Costa. Br. Conch. p.* 165. *tab.* 11. *fig.* 3.

Huitre. Pelure d'oignon. *Angenv. Conch.* 2. *p.* 316. *tab.* 22. *fig. C.* 11. *p.* 277. *tab.* 19. *fig. C.*

The perforated Oyster. *Petiv. Mus. p.* 85. *No.* 823.

Anomia Ephippium, larger. *Penn. Brit. Zool. No.* 70. *tab.* 62.

PLATE XXVI.

The Anomia Ephippium is frequently found on the common oyster, to the shell of which it adheres by means of a strong tendinous ligature, which passes through the perforation of the upper valve. This Shell is of an irregular form ; the outside rugged and filmy ; the inside smooth, pearly, and glowing with a variety of elegant tints. In different specimens the colours vary considerably, some being of a rich purple, others pale red, brown, or deep yellow, and all with a silvery hue.

PLATE XXVII.

BULLA LIGNARIA.

WOOD DIPPER.

GENERIC CHARACTER.

Shell sub-oval. Aperture oblong, very patulous, and smooth or even. One end rather convoluted.

SPECIFIC CHARACTER

AND

SYNONYMS.

Oblong, oval, narrow towards one end, and somewhat umbilicated, (or rather convoluted). Striated transversely.

BULLA LIGNARIA: testa obovata oblongiuscula transverse striata, vertice subumbilicato. *Linn. Syst. Nat.*

BULLA LIGNARIA major, leviter et dense transverse striata. *Da Costa. Br. Conch. p.* 26. *sp.* 14. *tab.* 1. *fig.* 9.

Concha veneris major, leviter et dense striata. *List. H. Conch. tab.* 714. *fig.* 71.

Bulla lignaria. Wood. *Penn. Brit. Zool. No.* 83. *tab.* 70. *fig.* 83.

Oublie, ou papier roulé, tonne a bouche entiere. *D'Avila. Cab. p.* 206, *No.* 387.

This species is not very common. It is found on the coasts of Cornwall, Devonshire, and Dorsetshire, and also on several of the coasts of Ireland.

The length is generally from one inch and an half to two inches; the shell is brittle and without gloss, of a light, brownish colour, wrought transversely, with fine striæ, and many narrow whitish veins. Its Latin and English names are derived from its supposed resemblance to a piece of veined wood.

This Shell is very open; its animal a slug.

PLATE XXVIII.

TURBO CLATHRATUS.

BARRED or FALSE WENTLETRAP.

GENERIC CHARACTER.

Animal Limax. Univalve. spiral, or of a taper form. Aperture somewhat compressed, orbicular, entire.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell taper, without umbilicus. Spires swelled and separated by a deep channel. Several regular elevated ribs or ridges extend in a longitudinal direction from the aperture to the apex.

TURBO CLATHRATUS: testa turrita ex umbilicata: anfractibus contignis lævibus. *Gmel. Lin. Syst. Nat. Conch. p.* 3603. *sp.* 63.—*Faun. Suec.* 2170.

Strombiformis minor albus aut pullo variegatus, costis longitudinalibus elatis eleganter distinctus. CLATHRATUS. *Da Costa, Br. Conch. p.* 115. *sp.* 67. *tab.* 7. *fig.* 11.

Cochlea variegata, striis raris admodum eminentibus exasperatae. *List. H. Conch. tab.* 588. *fig.* 51.

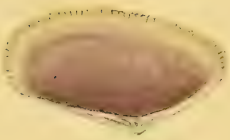
Turbo Clathratus. Barred Wentletrap. *Penn. Br. Zool. No.* 111. *tab.* 81. *fig.* 111. 111. *A.*

Fausse scalata. *D'Avila, p.* 221. *No.* 427.

PLATE XXVIII.

This is one of the most singular species that is found on the British coasts. It is very analagous to the famous Scalaris or Wentletrap of the East Indies, which bears such a high price amongst Conchologists; and from this analogy it is called the False Wentletrap. Its length is about an inch, and sometimes two inches or even more. The mouth is perfectly round, and bordered with a thick ring; from this ring arise several distinct equi-distant prominent ridges, generally eight in number, which extend the whole length of the shell in an obliquely longitudinal direction. These ridges appear the more remarkable and prominent, as the spires are very convex or swelled, and separated from each other by a deep spiral channel. The colour of most specimens is milk white, but is sometimes obscured with brown, or marked transversely with distinct circles of ferruginous interrupted lines.

Turbo Clathratus is found on several of the British coasts.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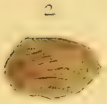
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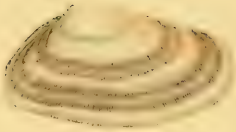
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PLATE XXIX.

FIG. I.

DONAX TRUNCULUS.

RIBBAND.

GENERIC CHARACTER.

Bivalve. Frontal margin very blunt.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell shallow, glossy. Outside fasciated with brown and purple. Inside purple. Margin crenated.

DONAX TRUNCULUS: testa antice lævi intus violacea, marginibus crenatis. *Linn. Syst. Nat.*

Tellina subfusca angustior, inter purpurascens. *List. H. Conch. tab.* 376. *fig.* 217.

Cuneus angustior lævis subfuscus vittis purpurascentibus fasciatus vittatus. *Da Costa, Br. Conch. p.* 207. *sp.* 41.

Donax trunculus. Yellow. *Penn. Br. Zool. No.* 45. *tab.* 55. *fig.* 45.

This pretty species is about one inch and a half in length. It is found on the coasts of Essex, Sussex and Cornwall, and also on those of Wales, Scotland and Ireland.

PLATE XXIX.

FIG. II.

DONAX IRUS.

FOLIATED PURR.

SPECIFIC CHARACTER.

Oval. Outside rugged or wrinkled transversely with numerous raised membranous waved laminæ or foliations.

DONAX IRUS: testa ovali, rugis membranaceis erectis striatis cincta. Cuneus parvus albescens, rugis foliaceis et membranaceis erectis transversim cinctus. Foliatus. *Da Costa. Brit. Conch. p.* 204.—*Sp.* 39. *tab.* 15. *fig.* 6.

Found in abundance in Cornwall buried in the sands, and not uncommon on the shores of Dorsetshire.

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PLATE XXX.

FIG. I.

LEPAS BALANUS.

RIDGED ACORN SHELL.

GENERIC CHARACTER.

Animal Triton. Shell of many unequal valves; affixed by a stem.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell conic, deeply furrowed, or wrought with prominent longitudinal ridges. Operculum ſharp pointed.

LEPAS BALANUS: testa conica sulcata fixa, operculis acumunatis. *Linn. Syst. Nat. p.* 1107.

Balanus majusculus valvis porcatis. Porcatus. *Da Costa, Br. Conch. p.* 249. *sp.* 69.

Frequent on the British coasts, adhering to rocks, shells, &c.— It is a large and ſtrong species, being seldom less than the size of a filbert, of a conic form and rugged appearance, and is wrought with very prominent longitudinal ridges.

PLATE XXX.

FIG. II.

LEPAS COSTATA.

RIBBED ACORN SHELL.

SPECIFIC CHARACTER.

Shell somewhat conic. Ribs equidiſtant and diverging from the aperture. Operculum sharp pointed.

LEPAS COSTATA: testa subconica operculis acutis: valvulis costatis.

This curious and rare species, which has not been hitherto described or figured, was found by the late T. Adams, Esq. of Pembroke, adhering to pieces of broken rock, and is in the poſſeſſion of the Rev. T. Rackett, of Spetisbury, Dorset, to whose liberality we indebted for figures of this, and several other Britiſh ſhells not included in our own collection.

FIG. III.

LEPAS CONOIDES.

SPECIFIC CHARACTER.

Conic. Smooth, valves pointed at the apex: aperture very small.

LEPAS CONOIDES: testa conica lævi valvulis acuminatis, apertura angustiſſima.

Found by Mr. Bryer of Weymouth, affixed to the Lepas anatifera.

PLATE XXXI.

MUREX DESPECTUS.

THE LARGE or DESPISED WHELK.

GENERIC CHARACTER.

Spiral, rough. The aperture ending in a strait and somewhat produced gutter or canaliculation.

SPECIFIC CHARACTER
AND
SYNONYMS.

Mouth wide, oval and somewhat elongated and cancellated at the upper end. Spires eight.

Murex Despectus: testa patulo subcaudata oblonga anfractibus octo. *Gmel. Linn. Syst. Nat. p.* 3547.

Buccinum album læve, maximum, septem minimum spirarum. *List. H. An. Angl. p.* 155. *tit.* 1. *tab.* 3. *fig.* 1.

Buccinum rostratum majus crassum, orbibus paululum pulvinatis. *List. H. Conch. tab.* 913. *fig.* 4.

Murex Despectus. Despised. *Penn. Br. Zool. t.* 78. *fig.* 93.

Buccinum canaliculatum magnum crassum striatum album. Magnum. *Da Costa tab.* 6. *fig.* 4. *p.* 120.

This is the largest of the turbinated univalves found in the British seas. It inhabits deep water, and is said to be a common shell on the

Essex, Sussex, and many other of the Engliſh shores as well as in Scotland, the Orkneys and many of the Irish shores also. On the Dorset coast it is rare.

It is frequently drawn up with oysters, and is sometimes eaten; but as it is coarse food, it more commonly furniſhes bait to fiſhermen.

The largest shells of this sort, found in our seas, sometimes exceeds five inches in length; it is a strong, thick, and heavy shell; of a whitiſh colour on the outſide; within of a most lovely yellow, inclining to orange, smooth, and very gloſſy.

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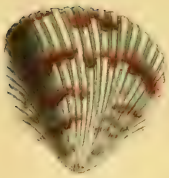

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PLATE XXXII.

FIG. I.

CARDIUM MEDIUM.

PIGEON'S HEART COCKLE.

GENERIC CHARACTER.

Two teeth near the beak; and another remote one on each ſide of the ſhell.

SPECIFIC CHARACTER,

AND

SYNONYMS.

Shell somewhat heart-ſhaped, and furrowed longitudinally, retuſe on one ſide.

CARDIUM MEDIUM: testa subcordata, antice retusa longitudinaliter striato sulcata. *Linn. Syst. Nat. n.* 77. *p.* 1122. *List. Conch. t.* 316. *fig.* 152. *Gualt. t.* 83. *f. b. Chemn. Conch. t.* 16. *fig.* 162.—165.

This ſhell has not hitherto been noticed as of Engliſh growth. Our ſpecimen, which differs in no reſpect from thoſe found in the Mediterranean ſea, was found near Hartlepoole, on the coaſt of Durham.

PLATE XXXII.

FIG. II.

CARDIUM CILIARE.

FRINGED COCKLE.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell roundish, inclining to heart shape. Ribs longitudinal, triangular, and beset along the ridges with thin spines.

CARDIUM CILIARE: testa subcordata, sulcis elevatis triquetris: extimis aculeato ciliatis. *Linn. Syst. Nat. p.* 1122. 80.

Pectunculus albus exiguus, muricibus insigniter exasperatus. *Wallace Orkn. p.* 44.

Pectunculus minimus triquetrus Essexiensis. *Petiv. Gaz. tab.* 93. *fig.* 11.

Cardium parvum tenue, costis triquetris aculeatis. Parvum. *Da Costa Brit. Conch. p.* 177. 17.

Pennant describes this species as having eighteen ribs, and Da Costa about fifteen; we have specimens that agree, in this respect, with the descriptions of both authors. The shell figured by the firſt is the size of a hazel nut; the latter says, he has never seen it larger than a nutmeg: a worn shell, with the habit of this species, that has been found since, is full twice that size.

This delicate shell is found on several of our coasts, as Cornwall, Dorsetshire, and Devonshire; alſo in the Orkneys.

PLATE XXXII.

FIG. III. III.

CARDIUM PYGMÆUM.

PYGMY COCKLE.

SPECIFIC CHARACTER
AND
SYNONYMS.

Nearly heart-shaped, somewhat angulated, furrows imbricated or beset with recurvated scales.

CARDIUM PYGMÆUM: testa subcordata, subangulata, sulcis recurvato imbricatis.

Cardium exiguum. *Gmel. Linn. Syst. Nat. p.* 3255. *sp.* 37?
List. Conch. t. 317. *f.* 154.
Testacea minuta rariora *t.* 3. *f.* 83.

Size of a large currant, of a reddish brown, or sometimes whitish colour.

Found in Kent, and at Falmouth, in Cornwall

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PLATE XXXIII.

FIG. I. II.

TURBO LITTOREUS.

COMMON PERIWINKLE.

GENERIC CHARACTER.

Animal Limax. Univalve, spiral, or of a taper form. Aperture somewhat compressed, orbicular, entire.

SPECIFIC CHARACTER
AND
SYNONYMS.

Shell with five spires: the firſt much swelled, the turban tapering and sharp pointed; striated spirally. Lip thin, and much spread on the pillar.

TURBO LITTOREUS: testa subovate acuta striata, margine columnari plano. *Linn. Syst. Nat. p.* 1232. *No.* 607. *Fn. Sv.* 2. 2169.

Turbo Littoreus, Periwinkle. *Penn. Br. Zool. No.* 109. *tab.* 81. *fig.* 109.

Turbo-pyramidalis crussus fuscus, striis crebris præditus. Littoreus. *Da Costa, Br. Conch. p.* 98. 55.

It is needless to enter into detail on a species so well known as the Common Periwinkle; yet it may be proper to observe, these shells, in many instances, vary considerably. The young shells are reddish,

whitish, yellowish, or brown, of various hues, sometimes uniform, or without any markings; at others, girdled spirally with darker colours. The adults also are sometimes bright red, orange, chesnut, or whitish, or olive, with, and sometimes without, the spiral lineations. They vary no less in size than in colours; and those of the Orkneys, in particular, are quadruple, the size of those on the Irish or English coast.

It is said, the name Periwinkle is a corruption of *Petty Winkle*, or small Winkle, or Whelk.

Fig. I. I., &c. Adult vanities of Turbo Littoreus. Fig. II. II. the young shells.

FIG. III. III.

TURBO RUDIS.

THICK-LIPPED PERIWINKLE.

SPECIFIC CHARACTER.

Shell somewhat tapering, without umbilicus. Volutions of the spires, or turban swelled. Lip thick, and glossy within.

This shell has been kindly communicated by Dr. Maton, as a new species. It is noticed in the first volume of that gentleman's Observations on the WESTERN COUNTIES; but has not, we believe, been hitherto figured. It was discovered on the banks of the Tamar, in Devonshire, near Bere-Alston, and is thus described:

PLATE XXXIII.

" In the mud appeared a species of *Turbo*, which, though very similar to *T. Littoreus* (the common Periwinkle), has some characters that seem to authorize its being considered as a different shell. The *anfractus* are much more swollen, as it were, than in the above species; the spire is more depressed; and, besides, there is no appearance of *striæ*, either transversely or longitudinally. This shell has a sort of distorted or rude *contour*, that may, perhaps, entitle it to the appellation of *T. Rudis*. Its colour is greenish." *Page* 277, *vol.* 1.

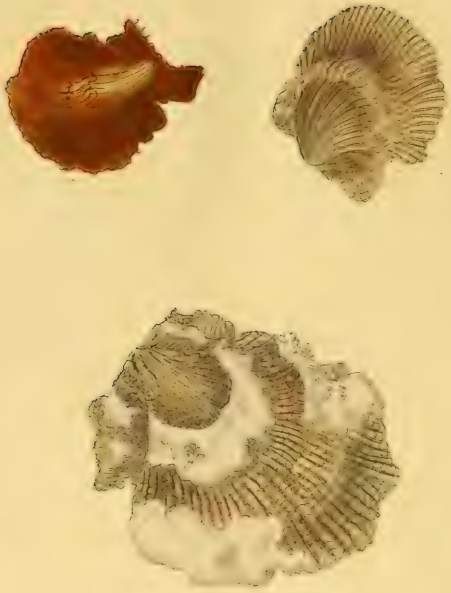

PLATE XXXIV.

OSTREA PUSIO.

DISTORTED.

GENERIC CHARACTER.

Animal a Tethys. Shell bivalve, unequal. The hinge without a tooth, having a small oval cavity.

SPECIFIC CHARACTER

AND

SYNONYMS.

Eared. With about forty longitudinal rays. Shell irregular, or distorted.

Concha testa aurita, striis circiter quadraginta. *Linn. F. Suec.* 1. *p.* 384. *No.* 1345.

Pecten minimus angustior, inæqualis fere et asper, sinu ad cardinem cylindraceo, ceberrimis minutissimisque striis donatus. *List. Hist. Angl. p.* 186. *tit.* 31. *tab.* 5. *fig.* 31.

Pecten Pusio. Writhed. *Penn. Br. Zool. No.* 65. *tab.* 61. *fig.* 65.

Pecten minor alba, contusa proteiformis. *Petiv. Gazoph. tab.* 94. *fig.* 2.

Twisted Pectines *of Stroma. Wallace, Orkn. p.* 43, 44

Pecten parvus inæqualibus, informis, striatus. DISTORTUS, DISTORTED. *Da Costa, Br. Conch. p.* 148. *tab.* 10. *fig.* 3. 6.

PLATE XXXIV.

Dissimilar as the several figures in this plate may appear, they are merely accidental varieties in size, growth, and colour of an individual species. These shells are generally about an inch, or more, in length, and of a somewhat globose shape; but so extremely irregular and distorted, that it can with difficulty be defined. Dr. Wallace calls these shells the twisted pectines of Stroma, a little island that lies in the Pightland Frith; he found them on some parts of the Orkneys, where he observed extraordinary cross and strong tides. The irregular form of these pectines rather surprised him. He adds, "I cannot think the odd strange tumbling the tides make there, can contribute any thing to that frame; yet, after all, I never see them in any other place."— These shells are now found on several of the English shores, as Yorkshire, Scarborough, Mouth of the River Tees, and Dorsetshire; and are also frequent in the fossil state, in the chalk pits of Kent and Surry. Both valves are convex, and much distorted, but the under one is usually the most irregular; the ribs are numerous, close set, longitudinal, and prominent. The inside of the lower valve is smooth and white, when alive, and that of the upper has a pearly gloss. The outside is generally of a dingy white, or yellowish cast; sometimes pale violet, or russety; or white mottled, and varied with brown, or brilliant red.

The ears of this shell are large, and nearly equal, but are often so distorted as to appear much otherwise. It is proper to observe, that though the irregular form this shell assumes may be attributed to some injury it has sustained in its growth, every shell of this species is constantly found with the same distorted appearance. This circumstance leaves no reason to doubt that such distortions are characteristic of this extraordinary and peculiar species.

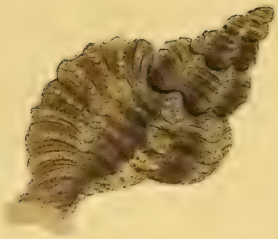

PLATE XXXV.

MUREX ERINACEUS.

GENERIC CHARACTER.

Spiral, rough. The aperture ending in a strait and somewhat produced gutter or canaliculation.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Shell subangular, rugose, or covered entirely with raised scales or points. Spires fix.

MUREX ERINACEUS: testa multifarium subfrondoso-spinosa, spiræ anfractibus retuso coronatis, cauda abbreviata. *Linn. Syst. Nat.* 526. *p.* 1216.—*Gmel. Linn. Syst. Nat. p.* 3530.

Buccinum majus canaliculatum, rostratum, ore labioso, fimbriatum, umblicatum, ore angusto, oblongo, rugosum, costulatum, striis eminentibus reticulatim exasperatum, albidum. *Gualt.* 1. *Conch. Tab.* 49. *fig.* H.

MUREX ERINACEUS. Urchin. *Penn. Br. Zool. No.* 95. *tab.* 76. *fig.* 95. *Seba. Muf.* 3. *t.* 49. *fig.* 78, 79.—*Martin. Conch.* 3. *t.* 110. *f.* 1026—8.

Buccinum longirostrum medium subangulatum, porcis spiralibus distinctum. Porcatum. *Da Costa. tab.* 8. *fig.* 7. 7. *p.* 133.

PLATE XXXV.

Found on the coast of Cornwall, and Dorsetſhire, and also on that of Hilbree iſland in Cheshire.

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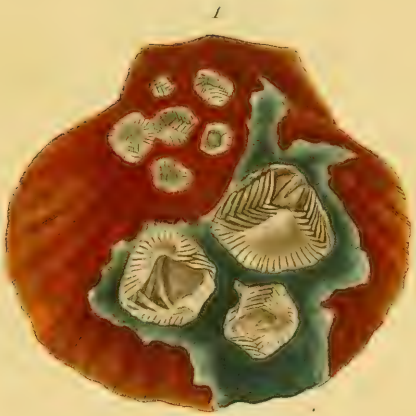
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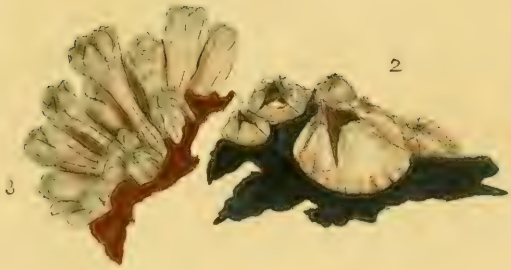
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PLATE XXXVI.

FIG. I.

LEPAS INTERTEXTA.

GENERIC CHARACTER.

Animal Triton. Shell of many unequal valves: affixed by a stem.

SPECIFIC CHARACTER AND SYNONYMS.

Shell rather depressed and ribbed obliquely.

LEPAS INTERTEXTA: testa subdepressa oblique costata.
Lepas striata. *Penn. Br. Zool. t.* 38. *f.* 7.
Walker teſt. min. rar. f. 87.

This rare ſpecies is the *Lepas intertexta* of the Portland Museum, it was fiſhed up at Weymouth, adhering to a valve of the Ostrea ſubrufus.

The shells of this genus are in general very complex in structure, the present is particularly so. Several shells of the natural size is represented on the orange space of the Ostrea, Fig. I.—Three figures are added to exhibit their magnified appearance; to distinguish these, the space is coloured green.

PLATE XXXVI.

FIG. II. III.

LEPAS BALANOIDES.

COMMON ACORN SHELL.

SPECIFIC CHARACTER

AND

SYNONYMS.

Shell conic truncated, of six valves. Operculum bifid.

LEPAS BALANOIDES: testa conica truncata; operculo obtuso. *Linn. Faun. Suec.* 1. *p.* 385. *No.* 1348 2. *No.* 2123.

Balanus vulgaris parvus conicus é senis laminis compositus, vertice operculo bifido rhomboide occluso. *Da Br. Conch. p.* 248. *sp.* 68. *tab.* 17, *fig.* 7.

Balanus cinereus, velut é senis laminis striatis compositus, ipso vertice altera testa, bifida, rhomboide occluso. Balani parva species. *List. H. An. Angl. p.* 196. *tit.* 41. *tab.* 5. *fig.* 41.

These shells are found in the greatest abundance on all the British shores, adhering to *rocks, shells, &c. &c.*

Da Costa says, this species, when not affixed on flat, but uneven surfaces, sometimes, but rarely, extend down into a pretty long rugged tubular stalk or root. This variety is noted by Pennant, and an extraordinary, but mutilated specimen of it, is shewn at fig. 3.

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ACCORDING TO

HISTORIA NATURALIS TESTACEORUM BRITANNIÆ OF DA COSTA.

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* MARINÆ. SEA

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* MARINÆ. SEA.

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PART III.

UNIVALVIA TURBINATA.

TROCHUS TOP SHELL.

* MARINÆ. SEA.

——— conulus, conule - - - - -	8	2.	3.
Trochus tuberculatus, knobbed - - - -	8	1.	

COCHLEÆ, OR SNAILS.

GENUS 8. NERITA, NERIT.

* FLUVIATILES. RIVER.

Nerita Fluviatilis. River - - - - -	16	2.	

MARINÆ SEA.

Nerita Littoralis. Strand - - - - -	20	2.	2.
Nerita Pallidulus, pale - - - - -	16	1.	

GENUS 9. HELIX.

* TERRESTRES. LAND.

HELIX.

Cochlea fasciata, girdled - - - - -	15		

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*** MARINÆ. SEA.

	Plate	Fig.
Cochlea catena. Chain - - - -	20.	1. 1.

GENUS 11. TURBO.

* TERRESTRES. LAND.

Turbo fasciatus. Fasciated - - - -	18	1. 1.

*** MARINÆ. SEA.

Turbo Littoreus, periwinkle - - - -	33	1. 2.
Turbo pictus, painted - - - -	2	2, 3, 4, 5, 6
Turbo cancellatus, latticed - - - -	2	1. 1.

GENUS 13. STROMBIFORMIS. NEEDLE SNAIL.

Strombiformis terebra, auger - - - -	22	2.
Strombiformis cinctus, girdled - - - -	22	1. 1.
Strombiformis clathratus, barred or false wentletrap -	28	

BUCCINA, WILKS, OR WHELKS.

GENUS 13. BUCCINA CANALICULATA.

GUTTERED WHELKS.

* MARINÆ. SEA.

Buccinum magnum, large - - - -	31	
Purpuro-Buccinum, purple whelke - - -	11	

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MURICES, ROCKS.

GENUS 16. APORRHAIS.

* MARINÆ. SEA.

	Plate.	Fig.
Aporrhais quadrifidus, four fingered - - -	4	

ORDER 2.

BIVALVES.

GENUS 1. PECTEN. ESCALLOP.

Pecten pictus, painted - - - - - -	12	
Pecten distortus, distorted - - - -	34	
Pecten monotis, one eared - - - -	1	1. 1.
Pecten parvus, small - - - - -	1	2.

GENUS 3. ANOMIA.

* MARINÆ. SEA.

Anomia tunica cepæ, onion peel - - -	26	

DIVISION 2.

GENUS 6. CARDIUM. HEART COCKLE.

* * MARINÆ. SEA.

Cardium aculeatum, spiked - - - -	6	
Cardium parvum, small - - - - -	32	2.

GENUS 7. PECTUNCULUS. COCKLE.

* MARINÆ. SEA.

	Plate.	Fig.
Pectunculus glaber, smooth - - -	17	

GENUS 9. CUNEUS. PURR.

* MARINÆ. SEA.

Cuneus fasciatus, fasciated		
Cuneus foliatus, foliated - - - -	29	2. 2.
Cuneus truncatus, truncated - - -	24	
Cuneus vittatus, ribband - - - -	29	1. 1.

GENUS 11. MYTILUS MUSCLE.

* MARINÆ. SEA.

Mytilus Modiolus, great - - - -	23	
Mytilus difcors, divided - - - -	25	

GENUS 15. PINNA. SEA HAM OR WING

* MARINÆ. SEA.

Pinna muricata, thorny - - - -	10	

PART IV.

MULTIVALVES.

GENUS 18.

Balanus vulgaris, common - - - -	36	2. 3.
Balanus porcatus, ridged - - - -	30	1.
Balanus anatiferus barnacle - - - -	7	

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